COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF MUHLENBERG COUNTY WATER DISTRICT (A) FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY (1) APPROVING THE CONSTRUCTION OF NEW PLANT FACILITIES; (2) APPROVING THE ISSUANCE OF CERTAIN SECURITIES; AND (3) AUTHORIZING ADJUSTMENT OF WATER SERVICE RATES AND CHARGES; AND (B) FOR AN ORDER APPROVING THE MERGER OF MUHLENBERG COUNTY WATER DISTRICT AND MUHLENBERG COUNTY WATER DISTRICT (GRAHAM) UNDER THE TERMS OF KRS 74.363 AND THE APPLICATION OF ESTABLISHED RATES OF MUHLENBERG COUNTY WATER DISTRICT TO THE CUSTOMERS OF MUHLENBERG COUNTY WATER DISTRICT (GRAHAM)	)	CASE NO. 9539

O R D E R

IT IS ORDERED that Muhlenberg County Water District ("Muhlenberg") shall file an original and seven copies of the following information with the Commission with a copy to all parties of record within 3 weeks of the date of this Order. If the information requested or a motion for an extension of time is not filed by the stated date, the Commission may dismiss the case without prejudice. Muhlenberg shall furnish with each response the name of the witness who will be available at the public hearing for responding to questions concerning each item of information requested.

1. In order to obtain realistic results when utilizing computer hydraulic analyses to predict a water distribution system's performance, engineering references stress the importance of calibrating the results predicted to actual hydraulic conditions. This calibration process should include matching field measurements to the results predicted by the computer over a wide range of actual operating conditions. As a minimum this should include average and maximum water consumption periods, as well as "fire flow" or very high demand periods.

Based on the above, explain the procedures used to verify the computer hydraulic analyses filed in this case. This explanation should be documented by field measurements, hydraulic calculations, etc.

2. The hydraulic analyses of the existing system depict pressures lower than 30 psig at Nodes 68, 78, 88, 114, 118 and 123. Nodes 68, 78, 88, 114 and 118 appear to be at the base of the existing water storage tanks. Provide information as to the number of customers affected by this condition at each location.

3. The computer hydraulic analyses filed in this case for the proposed water distribution system indicates that the potential exists for the system to experience low pressure (less than 30 psig) at Nodes 58, 75 and 78 after the proposed construction is complete. Pressures of this magnitude are in violation of PSC regulation 807 KAR 5:066, Section 6 (1). Provide details of any preventive measures or additional construction Muhlenberg intends to perform to protect against this type of

occurrence. Details should be documented by hydraulic analyses and field measurements.

4. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available at the locations listed below on Muhlenberg's system. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.

a. Water lines at the connection point to Central City.

b. Cleaton tank.

c. Beech Creek tank.

d. Twin Tunnels tank.

e. Dunmor tank.

f. Lake Malone tank.

g. Weir tank.

h. Depoy tank.

i. Nelson Creek tank.

j. Powderly tank.

k. Nebo tank.

l. Water line in the vicinity of junction 58.

m. Water line in the vicinity of junction 75.

n. Water line in the vicinity of junction 123.

o. Water line in the vicinity of junction 15 (The Job Corps Center and the Peabody Coal Company)

p. Water line in the vicinity of the sale point to the Muhlenberg County Water District-Graham.

q. Water line in the vicinity of the sale point to the City of Drakesboro.

r. On the suction and discharge sides of the Central City East Pump Station.

s. On the suction and discharge sides of the Central City West Pump Station.

t. On the suction and discharge sides of the Nonnel Pump Station.

u. On the suction and discharge sides of the Powderly Pump Station.

v. On the suction and discharge sides of the Belton Pump Station.

w. On the suction and discharge sides of the Lake Malone Pump Station.

x. On the suction and discharge sides of the Weir Pump Station.

5. Provide a copy of the pump manufacturer's characteristic (head/capacity) curve for each of Muhlenberg's existing pump stations. Identify each curve as to the particular pump and pump station to which it applies. Also state if pump is in use and if pump is going to remain in use or be replaced.

6. Provide a copy of the pump manufacturer's characteristic (head/capacity) curve(s) on which the design of the proposed pump station improvements was based.

7. Provide a copy of each of the county court orders establishing Muhlenberg and defining its boundaries. Also provide a copy of each of the county court orders establishing the

Muhlenberg County Water District-Graham ("Graham") and defining its boundaries.

8. Provide a highway map at a scale of at least one inch equals two miles marked to show both Muhlenberg and Graham water distribution systems. The map of the systems shall show pipeline sizes, location, and connections as well as pumps, water storage tanks and sea level elevations of key points. The map shall also be marked to show the location of the water districts' boundaries and labeled to indicate the appropriate court orders from which each boundary was determined.

9. Provide a narrative description of the proposed daily operational sequences of the water system. Documentation should include the methods and mechanisms proposed to provide positive control of all storage tank water levels. The description should also include an hourly summary of how all tanks will "work" (expected inflow or outflow of water) and how all pumps will function. The description should be fully supported by appropriate field measurements and hydraulic calculations.

10. The hydraulic information filed in this case indicates that there are quite a few existing 2-inch water lines of lengths in excess of 250 feet. Two-inch water lines which are longer than 250 feet for non-circulating water lines and longer than 500 feet for circulating water lines are in violation of PSC regulation 807 KAR 5:066, Section 11 (2) (a). Provide a list of all existing 2-inch water lines. This list shall include the location, number of customers served, length and possibility of future extension of

each line. This list should also include the lowest pressure experienced and whether any complaints of low pressure have been received.

11. In reference to the proposed merger of Muhlenberg and Graham, please provide the following information:

a. Copies of all debt obligations of each District, including copies of each bond ordinance, indenture and loan agreement.

b. A list of the holder of each debt of the districts and the name and address of the agent to whom payments are made. In addition, the list shall state the outstanding amount due, final retirement date, and the present payment status of each debt.

c. A copy of the last audit by either the Commission or an outside auditor.

Exhibit A1 - PSC Annual Report

The following questions concern the data reported in the December 31, 1985, Annual Report of Muhlenberg:

12. Balance Sheet.

a. Provide an explanation concerning the nature of the Construction Work in Progress ("CWIP") for the utility plant.

b. The report indicates the utility plant was increased $180,925 in addition to the $66,890 CWIP. Provide an explanation as to how these additions were financed.

c. Provide an explanation as to the nature of the Special Funds - Construction, Bond and Interest, and Depreciation Funds - including the periodic payments to the Funds and the

maximum amounts to be on deposit. Also explain the reasons for the significant decreases in the balances during 1985.

d. Provide an explanation as to what caused the liquidation of the Temporary Cash Investments totaling $36,982.

e. Prepare a schedule of notes payable, giving the date of issue, amount, maturity date, in whose favor, and interest paid during the calendar year 1985.

f. Provide an explanation as to why accounts payable increased 59.27 percent in 1985.

g. Provide an explanation as to why the accrued interest balance dropped $65,628 during 1985. Were previous periods' interest part of the beginning balance?

h. Provide the details concerning the Interim Financing of $55,900. This includes identifying the source of funds, purpose, and method of repayment. Is the financing part of the new construction Muhlenberg is seeking approval for?

i. For the increase in customer tap-on fees of $119,837, break down this amount into a total for residential, for commercial, and for industrial. For the commercial and industrial tap-ons, provide a breakdown by customer, amount, and how tap-on was computed, if the connection was other than a 3/4-inch meter.

j. Identify the nature and purpose of the $22,000 increase in the Federal Grants in Aid of Construction Account. Include the granting agency and the terms of the grant.

13. Statement of Income.

a. Provide an explanation for the decrease of 19.75 percent in Miscellaneous Nonoperating Income.

b. Given the known problems with Muhlenberg's water lines, explain why the Transmission and Distribution - Maintenance of Mains expense decreased $12,684 or 75.12 percent.

c. Provide an explanation as to why payroll taxes increased $9,366, or 70.34 percent in 1985.

d. Provide an explanation as to the nature and need to record a $250 credit for Administrative Expenses Transferred.

e. Prepare a schedule listing all of Muhlenberg's employees, full- and part-time, for the 1985 year. For each employee, provide:

(1) The beginning of year salary.

(2) The end of year salary.

(3) The effective date of any increases in 1985.

(4) The amount of any increases proposed for the immediate future.

f. The 1985 Annual Report indicated that 196 customers were added. The Preliminary Engineering Report ("Exhibit B") breaks down Muhlenberg into nine service areas. Prepare a schedule, by service area, indicating how many customers were in each area at the beginning of the year and the number of new additions for each area.

Exhibit A2 - PSC Annual Report - Graham

The following questions concern the data reported in the December 31, 1985, Annual Report of Graham.

14. Balance Sheet.

a. Provide an explanation as to the nature of the

Sinking Fund, including the periodic payments to the fund and the maximum amount to be on deposit. Also explain the reason for the exhaustion of the fund in 1985.

b. Provide an explanation as to why the accrued interest balance dropped $3,083 during 1985. Were previous periods' interest part of the beginning balance?

c. Provide an explanation as to the nature of the amounts reported as Other Current and Accrued Liabilities.

Exhibit B - Rate Analysis, March 1986

The following questions concern the various exhibits presented in the Rate Analysis.

15. Exhibit 1G - Revenue Table - Graham Format. Provide an explanation as to why the listed rates do not agree with the tariff sheet on file with the Commission, dated June 1, 1965.

16. Exhibit 1H - Wholesale Customers and Large Users - Ensign/Bickford Section. Provide an explanation as to what this section of the schedule is to represent and how the rates were computed. The referenced rates are not part of the tariff on file with the Commission.

17. Exhibit 3 - Schedule of Income and Expenses. Provide a breakdown of the amount recorded as expense in the Regulatory Commission Expenses as to which case(s) it relates to. If expense related to this amount is for Case No. 9262, explain why an amortization figure was included as Other Debt Amortization.

18. Exhibit 6 - Adjustments to Expenses. The exhibit presents the adjustments to expenses by the types of Operation and

Maintenance Expenses, rather than by individual costs. The adjustments are based on these broad types of expenses. Prepare a detailed schedule of expense adjustments, using the accounts listed in the Operation and Maintenance Expense form of the PSC Annual Report. Provide explanations and computations to support each adjustment.

19. Exhibit 7 - Depreciation Calculation. Using a format similar to Exhibit 7 or by providing copies of depreciation schedules containing the same information, submit these depreciation schedules:

a. For the current utility plant of Muhlenberg, using the current service lives.

b. For the current utility plant of Graham, using the current service lives.

c. For the utility plant added by the project, using the appropriate NARUC service lives.

Also for the current utility plants of Muhlenberg and Graham, indicate the accumulated depreciation for each account as of December 31, 1985.

Exhibits C2 and C3 - Purchased Water Contracts

20. Were the existing water contracts with Graham and the City of Drakesboro formally amended to reflect the water rates allowed in Case No. 9262? Provide copies of the appropriate, approved contract amendment.

Exhibit E - Bond Authorizing Resolution - Section 13

21. Provide copies of the Interim Financing Resolutions as

well as the terms, lendor, and other related information concerning the financing.

Exhibit J - Proposed Rate Resolution

22. Provide an explanation as to why the proposed rates for Muhlenberg/Graham differ with the Farmers Home Administration ("FmHA") Letter of Conditions dated May 23, 1985. Has FmHA been notified about the intention to merge the systems and the resulting debt structure of the merged system? Provide copies of FmHA approval or other related documents.

23. Provide an explanation as to whether the 60¢ surcharge for the Water Loss Demonstration Project is already incorporated in the proposed rates or is to be in addition to those rates.

Exhibit L1 - Joint Agreement to Merge

24. Identify the commissioners of both the Muhlenberg and Graham districts as of December 31, 1985. Indicate the positions each holds on their respective commissions, annual salaries, and date of expiration of their current terms. Also indicate what the commissioners' salaries will be for the merged system. The application is inconsistent as to who the Graham commissioners are.

25. Provide a schedule of the annual costs of providing free water to Muhlenberg's commissioners. Identify how much water was provided in the test year and how Muhlenberg determines and tracks this benefit.

26. Does Muhlenberg, as the surviving member of the merger, have plans in the immediate future to refinance the outstanding debt of Graham, as provided in Article III? Provide plans for the

structure of the outstanding debt in the merged system and the details of any additional financing.

Monthly Revenues and Expenses

27. Are the 12 Monthly Revenues and Expenses schedules for Muhlenberg only or are they combined with Graham? If they are combined, provide a breakdown for each month between Muhlenberg and Graham. If it is for Muhlenberg only, provide a reconciliation of the totals of the 12 monthly schedules and the 1985 PSC Annual Report.

Water Loss Demonstation Project

These questions relate to Water Loss Demonstration Project authorized in the Commission's final Order for Case No. 9262:

28. Muhlenberg was instructed in a letter dated December 18, 1985, from the Division of Engineering of the Commission to submit a revised Unaccounted-for Water Reduction Plan, including appropriate maps. Provide an explanation as to why the Commission has not received this information.

29. Muhlenberg's report of April 28, 1986, indicates various actions taken during the period January to March 1986. Many of the actions seem to be of a nature which would normally be performed by a district purchasing water or constitute necessary system repairs rather than being part of an overall reduction plan. Provide an explanation as to how these actions relate to Muhlenberg's revised plan noted above or the plan submitted November 7, 1985.

30. For the months of January to March 1986, provide these figures:

a. Total water purchase for each month, in gallons.

b. Total water sales for each month, in gallons.

c. Unaccounted-for water for each month, in gallons and percentage of purchases.

31. The March 1985 Preliminary Engineering Report (Exhibit B, Page 3) states that the City of Powderly is a wholesale user. Is Powderly included in the billing analysis? What is the rate charged to the city?

32. The statement of monthly revenues and expenses shows revenue received from Graham as $26,494. The rate study (Exhibit 1H) shows revenue in the amount of $29,733. Please provide an explanation for this difference.

33. The cash flow summary shown as (Exhibit 11) in the rate study shows total revenue from water sales as $858,184. The schedule of income and expenses (Exhibit 3) shows test year revenue from water sales as $849,104. The statement of monthly revenues and expenses shows test year revenue to be $841,710. Please provide a reconciliation for these differences.

34. The 1985 Annual Report for Muhlenberg shows 47,568 bills, 301,694,700 gallons sold and revenue in the amount of $849,104. The rate study shows 46,946 bills, 300,818,254 gallons sold and revenue from water sales in the amount of $858,185. Please reconcile these differences.

35. The 1985 Annual Report for Graham shows 2,784 bills, 14,289,100 gallons sold, and revenue in the amount of $36,697. The billing analysis shows 2726 bills, 11,174,900 gallons sold and revenue from water sales in the amount of $32,644. Additionally

the rate study (Exhibit 3) shows revenue in the amount of $36,607. Please reconcile these differences.

36. What is the present and proposed rate for Ensign-Bickford?

37. The billing analysis shown in the rate study shows an average number of customers and average usage per customer. The average number of customers is calculated by dividing the total number of bills by 12 months. However, the billing analysis is broken into different time periods with one based on 10 months and the other based 2 months. Should the average number of customers be divided by 10 and 2 months instead of 12 months?

Done at Frankfort, Kentucky, this 14th day of May, 1986.

PUBLIC SERVICE COMMISSION

Richard D. Heman, Jr.
Chairman

Vice Chairman

Commissioner

ATTEST:

Secretary